

RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Rating	Mitigation Measures	Responsibility
TECHNICAL			
1. The standard Vietnamese traffic forecasting system may underestimate the actual future traffic demands and the associated required road design standards.	S	Additional project feasibility study to include traffic counts, traffic forecasts, and PCU ratings by traffic class, and estimates of ESA for each year of the asset design life. The feasibility study and DED documentation will include a reconciliation of PCU and ESA forecasts with proposed design category guidelines for prior ADB approval. These mitigating measures will reduce the risk to medium.	DPIs and PMUs
2. Water source data for RDWS schemes are based on indirect measurements and may overstate the reliability of the water source.	M	One full year of gauging is to be undertaken for all proposed water sources and the annual rainfall to be used as a comparison to the indirect modeling of water availability. Any divergence exceeding 10% will require longer water source records prior to ADB approval of subproject feasibility study.	DPIs and PMUs
3. Climate change impacts lead to extreme weather events that delay implementation and damage infrastructure.	S	Climate-resilient measures are included in all infrastructure designs. Appropriate sized procurement contracts are to be awarded to contractors with demonstrated ability to complete works within the construction season.	PMUs
4. Low construction standards result in low-quality assets.	M	Design standards linked to PCU and ESA forecasts are to ensure appropriate design. Construction supervision and contract terms of reference will place emphasis on capacity and quality standards.	DPIs and PMUs
ECONOMIC AND FINANCIAL			
5. RDWS schemes financially unable to support service standards and asset management	S	RDWS scheme management will be assigned to functioning provincial or municipal water supply service providers, increasing capacity to cover all operational aspects. This is an emerging practice for RDWS management and has been found to be successful. These mitigating measures will reduce the risk to medium.	PPCs and DPIs
6. Agricultural enterprise failures	M	Enterprise feasibility and viability will be assessed as part of the business plan and feasibility study required qualifying for project support. All business plans will be substantiated by commodity market assessments.	Lang Son PMU and recruited service providers.
7. FNEP road infrastructure has been developed in a piecemeal fashion whereby available funds are stretched to extend the road system as	S	The project will focus on achieving appropriate design standards to enable normal O&M implementation at minimized life cycle costs. Inputs to the DED will include strong considerations of traffic loading, and climate resilience. Whole-life	PPCs, DOTs, DPIs

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<p>much as possible. This results in roads built to inadequate standards and normal maintenance operations cannot be executed. Instead, the roads are under constant repair to keep them open. This is inefficient and expensive in terms of vehicle operating costs. Moreover, O&M nationwide is under-resourced. Deterioration in one road link can lead to traffic diversion and heavy loading of an alternative link.</p>		<p>cost estimates and ability for PPCs to meet O&M costs will be presented in the subproject FS as a condition for approval. Output 4 will put in place systems that support prudent asset management decision making that enhances sustainability.</p>	
GOVERNANCE			
Financial Management			
8. Weak public financial management	S	<p>ADB's Viet Nam country partnership strategy, 2016–2020 identifies weak public financial management as a major challenge. The project will address this problem through a financial management action plan that will include robust accounting and financial management systems in line with the recommendations of the financial management assessment. These measures are described in the PAM and will reduce the risk to medium.</p>	DPIs and PMUs
9. Financial systems weakly linked to the quality of work done, leading to payments for inferior work.	L	<p>LIC to include an experienced financial management role.</p>	PMUs
10. Possibility of cost overruns on additional subprojects leading to additional demand for counterpart funds.	M	<p>Subproject feasibility study will include financial analysis. ADB subproject approval process will review feasibility study to ensure that financial resources are confirmed prior to approval of works.</p>	PMUs and ADB
11. Counterpart funds are not available as committed to and required for project implementation.	S	<p>Loan assurances, annual financial planning, and the use of PPSFF for DED should enhance the availability and timely flow of adequate counterpart funds. These measures will reduce the risk to medium.</p>	MOF, PPCs, and DPIs
12. Province debt ceiling reached, limiting access to approved loan funds in timely manner.	M	<p>Loan covenant for consultation and financial review prior to PPCs taking on additional debt.</p>	MOF and ADB
13. Inaccurate financial management reporting because of unclear	M	<p>In line with the financial systems and funds flow as described in the PAM, the DPIs and the PMUs will establish separate bank</p>	DPIs

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boundaries between DPI and PMU.		and project accounts with independent audit.	
14. Weak internal audit capacity within agencies	L	Accounts under the loan will be audited by external auditors in addition to internal ongoing reviews.	DPIs and ADB
Procurement			
15. Weak procurement practices and capacity	S	The CPS identifies weak procurement as a major challenge. The procurement plan has been designed based upon the recommendations of the procurement risk assessment and management plan prepared during the PPTA. It minimizes the number of consulting service and civil works packages and provides for startup assistance through the ADB-financed PPTA to mobilize the LIC early in the project. These measures will reduce the risk to medium.	PMUs and ADB
16. Current practice favors small local contractors with inadequate skills and technology to deliver on-time quality assets.	M	Procurement plan specifies only NCB and fewer and larger contracts to reduce the number of transactions.	DPIs and PMUs
17. Corruption during contract process	M	Training of PMU in procurement systems and ADB review reduce the likelihood of inappropriate contract practices.	DPIs and PMUs
Capacity			
18. Adequate competent staffing of PMUs.	M	Key PMU staff will be reviewed by ADB and each PMU is to be supported by an LIC for key technical functions.	PPCs, DPIs and ADB
19. Ability of PMUs to handle implementation.	L	LIC to be engaged for key technical functions.	DPIs and PMUs
20. PMU secondees from DPI would continue in existing posts.	M	Operational staff of PMU to be 100% allocated to PMU responsibilities with prior review by ADB.	DPIs and PMUs
21. Inadequate accounting records retained at PMU.	L	Separate accounts will be maintained for each PMU with independent auditing.	PPCs and DPIs
22. Capacity to work in ARVC linked to export or trade-based commodities is limited, resulting in the traditional preference to invest narrowly in production.	S	Provision of a PPP framework, multisector public representation through HortLangSon, agribusiness service providers, and market buyer linkages. Adapting approaches established by IFAD under similar conditions will ease this problem.	Lang Son PPC
Institutional			
23. Public sector not structured to support ARVC approach.	S	The development and implementation of a PPP multisector approach whereby commodity producer groups form sector associations partnering with differing public sector institutions.	PPCs and DPIs
24. Lack of capacity to manage RDWS schemes	M	The use of established and functioning provincial municipal water supply	PPCs and DPIs

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		management operators to provide management of RDWS schemes.	
25. Inability of local agribusiness enterprises to add value because of fragmented production of small volumes, and low-quality products.	M	Joint venture service provider contracts to be used to build commercial services within the project implementation period.	Lang Son PPC and DPI
Poverty, Social, and Gender			
26. Women's participation in ARVC constrained by work load, limiting effective use of funds.	M	Social assessment of proposed producer groups and enterprise support to ensure scaling of investment and provision of labor-saving technologies and investments.	Lang Son PMU
27. Women's participation in decision making relating to project design and implementation and asset management.	M	Participation and gender targets required in project DMF and inclusion of commune supervision boards in subproject implementation.	PMUs
28. Inclusivity of poorer households in RDWS connections.	M	All households within target communities will be eligible for connections during the project implementation period.	PPCs
29. Poor households are not integrated into ARVC.	M	Sector and commodity plan that require explicit backward linkages set targets for poor household participation in producer groups and producer enterprises.	HortlangSon, Lang Son DPI, and PMU
Safeguards			
30. Additional subproject feasibility reports do not have safeguard inputs that meet ADB requirements.	M	Processing approval requires prior review by ADB, provision of safeguard staff in PMU supported by safeguard LIC staff member.	DPI, PMU, and ADB
31. Additional subprojects differ significantly in terms of terrain, risk factors, or location from representative subproject such that safeguard framework are less likely to be considered relevant	M	Initial screening of long list during PPTA, agreed subproject processing procedures. Provision of safeguard expertise in PMU and LIC.	DPIs and ADB

S = substantial risk, M = moderate risk, L = low risk.

ADB = Asian development Bank, ARVC = agriculture and rural value chain, DED = detailed engineering design, DMF = design and monitoring framework, DPI = Department of Planning and Investment, ESA = equivalent standard axle, LIC = loan implementation consultant, MOF = Ministry of Finance, O&M = operation and maintenance, PAM = project administration manual, PCU = passenger car unit, PMU = project management unit, PPC = provincial people's committee, PPP = public-private partnership, PPSFF = Project Preparation Support Fund Facility, RDWS = rural domestic water supply, VRM = Viet Nam Resident Mission.

Source: Asian Development Bank.